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Claims 1-14 are canceled.

- 15. (new) A process for preparing a reaction product (RP) functionalized by groups containing halogen or sulfonyl chloride by reaction of the following components under free-radical conditions:
 - a) at least one free-radically polymerizable monomer as component (A),
 - b) at least one compound of the formula (I) as component (B)

$$R_3$$
 R_4
 R_2

where R_1 to R_4 are each, independently of one another, hydrogen, an in each case unsubstituted or substituted alkyl radical, cycloalkyl radical or an aralkyl radical or an unsubstituted or substituted aromatic hydrocarbon radical, with the proviso that at least two of the radicals R_1 to R_4 are unsubstituted or substituted aromatic hydrocarbon radicals or the radicals R_1 and R_2 or R_3 and R_4 in each case in pairs are a substituted or unsubstituted aromatic hydrocarbon having from 6 to 18 carbon atoms and bearing a functional group which has a multiple bond between a carbon atom and a heteroatom which is conjugated with the C-C double bond in the formula (I),

- c) at least one free-radical initiator as component (C),
- at least one free-radically polymerizable monomer containing halogen or sulfonyl chloride groups as component (D).

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- 16. (new) A process as claimed in claim 15, which comprises the following steps:
 - (i) reaction of the components (A), (B) and (C) under free-radical conditions to form a reaction product (RP');
 - (ii) reaction of the reaction product (RP') with the component (D) and, if desired, further free-radically polymerizable monomers (component (A)) which are different from the free-radically polymerizable monomers used in step (i).
- 17. (new) A process as claimed in claim 15, wherein the components (A) to (D) are reacted in one step.
- 18. (new) A process as claimed in claim 15, wherein at least one free-radically polymerizable monomer selected from the group consisting of styrene, acrylic and methacrylic acid, C₁-C₁₀-alkyl and -hydroxyalkyl acrylate and -methacrylates, preferably methyl methacrylate; vinyl acetate, substituted or unsubstituted vinylpyrrolidone and mixtures of two or more of the monomers mentioned is used as component (A).
- 19. (new) A process as claimed in claim 15 wherein at least one compound selected from the group consisting of 1, 1-diphenylethylene, alkoxydiphenylethylene, 1,1-dinaphthylethylene, 4,4- vinylidenebis(N ,N' -dimethylaniline), 4, 4-vinylidenebis (1- aminobenzene), cis-stilbene, trans-stilbene, methyl α-phenylacrylate, methyl α-phenylmethacrylate, α-phenylacrylonitrile, α-phenylmethacrylonitrile and mixtures of two or more thereof is used as component (B).
- 20. (new) A process as claimed in claim 15, wherein 4-chloromethylstyrene is used as component (D).

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- 21. (new) A reaction product (RP) functionalized by groups containing halogen or sulfonyl chloride which can be prepared by a process as claimed in claim 15.
- 22. (new) A process for preparing graft copolymers by reaction of a reaction product (RP) as claimed in claim 21 with at least one suitable monomer as component E.
- 23. (new) A process as claimed in claim 22, wherein the reaction is a cationic polymerization.
- 24. (new) A process as claimed in claim 22, wherein the monomers (E) are selected from the group consisting of olefins, preferably isobutene or mixtures of isobutene with α-olefins, and cyclic ethers, preferably tetrahydrofuran (THF), dioxolane (DXL) and 1,4-dioxane.
- 25. (new) A process as claimed in claim 22, wherein Lewis acids such as boron trifluoride, alkylaluminum chlorides such as diethylaluminum chloride, aluminum alkyls such as triethyaluminum or trimethylaluminum, titanium halides such as TiCl₄ or silver perchlorate are used as coinitiator.
- 26. (new) A grafted copolymer which can be prepared by a process as claimed in claim 22.